CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-152

NPDES NO. CA 0029441

WASTE DISCHARGE REQUIREMENTS FOR:

P.I.E. NATIONWIDE
EMERYVILLE, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. P.I.E. Nationwide, hereinafter called the discharger, by application dated October 30, 1986 with amendments to the application dated July 25, 1988, has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. The discharger, a freight carrier, formerly used the site located in Emeryville, Alameda County as a truck terminal which involved freight transfer and truck maintenance. The location was also used as a warehouse office facility. The site is presently undergoing construction into becoming a retail shopping mall. See Attachment A for a site location.

3. The discharger has been involved with soil and groundwater investigations at the site since August 1986. The pollution onsite exists both in the soil and groundwater because of leaking underground storage tanks, above-ground storage tanks and product delivery lines. The soil has been determined to be contaminated with diesel, gasoline and other associated petroleum products. The groundwater samples have been analyzed to contain benzene; toluene; xylenes; phenols; and polynuclear aromatic hydrocarbons including fluorene, napthalene, phenanthrene and pyrene.

4. The discharger proposes in situ remediation of the soil and groundwater hydrocarbon pollution by augmented bioreclamation using laboratory selected bacterial cultures.

5. This augmented bioreclamation system will consist of using bacterial cultures to biodegrade the diesel fuel polluting both the soil and groundwater. Treatment will involve both above ground bacterial bioreclamation of water extracted from the trenches and subterranean bioreclamation of the contaminated soil with aerated bacterial cultures injected into the ground.

6. The treated groundwater, designated Waste 001, will be discharged at a rate of 5760 gallons per day to a storm drain which is tributary to Temescal Creek and Central San Francisco Bay.

7. The discharger has been collaborating with the Alternative Technology and Policy Development Section of the Department of Health Services, Toxic Substances Control Division in Sacramento.

8. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Central San Francisco Bay, and contiguous surface and ground water.

9. The beneficial uses of Temescal Creek and San Francisco Bay include:

   a. Contact and non-contact water recreation
   b. Wildlife habitat
   c. Preservation of rare and endangered species
   d. Estuarine habitat
   e. Fish spawning and migration
   f. Industrial process and service supply
   g. Shellfishing
   h. Navigation
   i. Ocean commercial and sport fishing

10. The Basin Plan prohibits discharge of wastewater which has particular characteristics of concern to beneficial uses at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof.

11. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 10 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

12. Exceptions to the prohibitions referred to in Finding 10 are warranted because the discharge is an integral part of a program to clean up polluted groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would effect beneficial uses. Should studies indicate chronic effects, not currently anticipated, the Board will review the requirements of this Order based upon Receiving Water Limitation C.1.e.

13. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

14. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance, and best engineering judgement as to best available technology economically achievable.

15. Effluent limitations and toxic effluent standards established pursuant to Sections 301, 304 and 307 of the Clean Water Act, and amendments thereto are applicable to the discharge.

16. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

17. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

18. The Board, in a public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that P.I.E. Nationwide, Emeryville, Alameda County, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of waste or hazardous materials in a manner which will degrade the water quality or adversely affect beneficial uses of the groundwaters of the State is prohibited.

2. The discharge shall be limited to treated groundwater and stormwater runoff which meet the effluent limitations.

B. Effluent Limitations

1. Waste 001 at the point of discharge into Temescal Creek shall not contain constituents in excess of the following limits:

Constituent	Units	Instantaneous Maximum
Benzene	ug/l	5
Ethyl benzene	ug/l	5
Toluene	ug/l	5
Total Xylenes	ug/l	5
Total Petroleum Hydrocarbons	ug/l	50
Total Phenols	ug/l	50
Total PAH's*	ug/l	15

* Total PAH's = total polynuclear aromatic hydrocarbons as detected by EPA (Environmental Protection Agency) Method 610.

2. Waste 001 at the point of discharge into Temescal Creek shall not contain constituents in excess of the following limits:

Constituent	Units	Instantaneous Maximum
BOD	mg/l	30
Total Suspended Solids	mg/l	30

3. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

4. TOXICITY: The survival of test fishes in 96-hour static renewal bioassays of the discharge of the effluent shall be a median of 90 percent survival and a 90 percentile value of not less than 70% survival.

Compliance of the bioassays shall be performed using the test fish species specified in Part B of the attached Self-Monitoring Program.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption whether at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be expected to be exceeded in waters of the State in any place within one foot of the water surface:

a. Dissolved oxygen: 7.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentration(s) than

specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

b. pH	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.	
c. Un-ionized ammonia	0.025 mg/l as N	Annual Median
	0.16 mg/l as N	Maximum at any time

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption.

2. The discharger shall comply with the attached Self-Monitoring program as adopted by the Board and as may be amended by the Board.

3. The discharger shall also notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order.

5. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986 except Items B.2 and C.8.

6. This Order expires September 20, 1993. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

7. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit

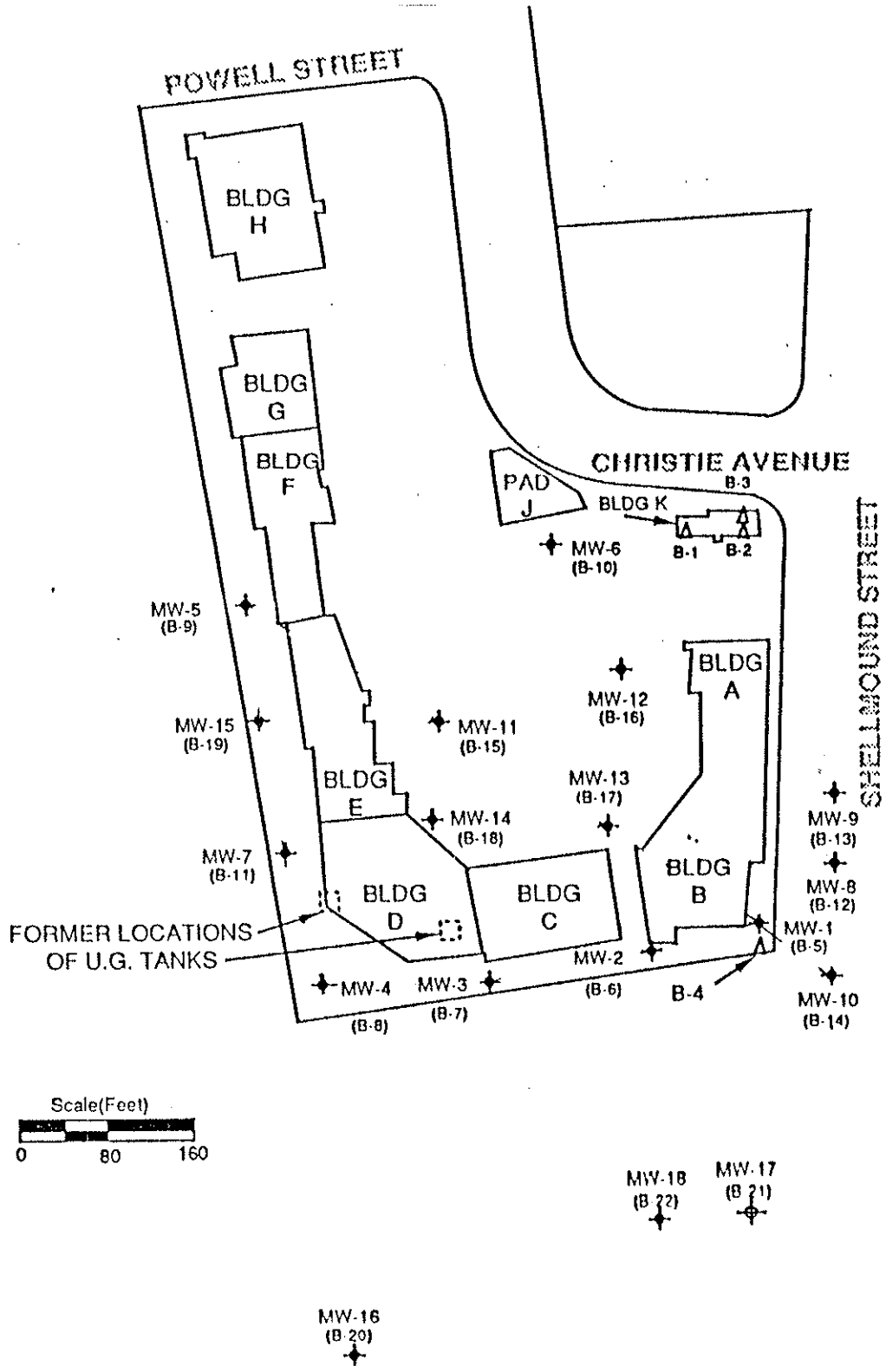
shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an order adopted by the California Water Quality Control Board, San Francisco Bay Region on September 21, 1988.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:

Standard Provisions & Reporting Requirements, dated December 1986
Self-Monitoring Program
Site map



LEGEND

- Monitoring Well Location
- Boring Location

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Attachment A:
Site Map
P.I.E. Nationwide
5500 Eastshore Freeway
Emeryville, Alameda County

DRAWN BY:	DATE: 8-5-88	DRWG. NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

P.I.E. Nationwide

Emeryville, Alameda County

NPDES NO. CA 0029441

ORDER NO. 88-139

CONSISTS OF

PART A (dated December 1986
Mod. SBTD 1/23/87)

AND

PART B

PART B

for
P.I.E. NATIONWIDE
EMERYVILLE, ALAMEDA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Stations	Description
I-1	At a point in the groundwater extraction/ treatment system immediately prior to treatment

B. EFFLUENT

Stations	Description
E-1	At a point in the groundwater extraction/ treatment system immediately following the treatment process (Waste 001)

II. BIOASSAY REQUIREMENTS

A. The fish species to be used for compliance of the bioassay shall be rainbow trout. If the discharge is determined to be too saline for rainbow trout, an alternate fish species shall be chosen as acceptable by the Executive Officer.

III. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given in Table I.

IV. Miscellaneous reporting

If any chemical additives are proposed to be used in the operation of the treatment system it shall be reported 30 days prior to their use.

V. MODIFICATION TO PART A

A. Deletions:

Sections D.2.e, D.2.g, E.1.e, E.3, and E.4.

B. Modifications:

G.4 Written reports under G.4 shall be filed each calendar quarter, once in January, April, July and October.

G.4.b The report shall be prepared in a format acceptable to the Executive Officer. The example in Appendix A is provided as guidance.

G.4.e The report will be prepared in a format acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance.

G.4.e.1 Influent and Effluent Data Summary Reports shall be submitted only to the Regional Board Executive Officer, not to the EPA.

G.5 By January 30 of each year, the discharger shall submit, in place of the quarterly report, an annual report to the Regional Board covering the previous year.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 88-139.

2. Was adopted by the Board on September 21, 1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer or Regional Board.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachment: Table I

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1	E-1										
Type of Sample	G	G										
Flow Rate (gal/day)		D										
Dissolved Oxygen (mg/l and % saturation)		M										
Un-ionized Ammonia (mg/l as N)		2/Y										
Temperature (^{o}C)		2/Y										
Fish Toxicity, 96-hour (% survival)		2/Y										
pH (units)		M										
EPA Method 602 (ug/l) (1)	M*	M*										
EPA Method 610 (ug/l) (2)	M*	M*										
Total Phenols (ug/l)	M*	M*										
Total Petroleum Hydrocarbons (ug/l)	M*	M*										
Priority Pollutant Scan (3)		A*										
Metal Toxic Pollutants (4)	A*	Q*										
BOD, 5-day, 20^{o}C (mg/l)		M*										
Suspended Solids (mg/l)		M*										

LEGEND FOR TABLE

G = Grab Sample
D = Once a day
M = Once each month
Q = Quarterly, once in March, June, September, and December
2/Y = Once in June and December
M* = Twice a month for the first three (3) months of startup of operation; reduced to once a month thereafter.
A* = Once within three (3) weeks after startup or upon commencement of discharge; annually thereafter.
Q* = Once within three (3) weeks after startup or upon commencement of discharge; quarterly thereafter.

(1) For the detection of benzene, toluene, ethyl benzene and xylenes.
(2) For the detection of polynuclear aromatic hydrocarbons.
(3) Test results may be used to satisfy NPDES Form 2C.
(4) As defined in NPDES Form 2D.